

# Unraveling the Linguistic Histories of Philippine Negritos\*

## 1. Overview

The Philippines is a particularly fertile field for the study of contact-induced language change. Within the last 500 years two major powers have colonized the Philippines, the Spanish for some 350 years and the Americans for 50. The former contact resulted in a number of Spanish-based creoles (Zamboangueño, etc.), and extensive lexical influence in most of the local Philippine languages that the Spanish used for proselytizing and political control. Ibanag, for example, one of the languages of the Cagayan Valley in Northern Luzon, has a considerable body of Spanish loanwords in its lexicon. 51% of the 3,641 main entries in Ibarbia's (1969) Gaddang dictionary are Spanish borrowings.

Despite the strong lexical influence, Spanish influence on the phonological and syntactic systems of most Philippine languages appears to have been minimal. A phonological contrast between high and mid, front and back vowels in Tagalog and a number of other languages often attributed to Spanish loan influence was probably already underway as a result of diphthong reduction and vowel lowering in certain phonological environments (Reid 1973). Spanish initial affricates and stop-liquid clusters brought about word initial consonant clusters in some Philippine languages, such as Tagalog, which do not appear in inherited vocabulary.

The Americans instituted a universal, English-based education which for fifty years produced Filipinos bilingual in English, and until today English continues to have a major influence on languages throughout the country, being now parlayed not only through the schools but also through the print and electronic media to the remotest barrios of the land. But as with Spanish, despite the extensive lexical contributions made by English, there has been relatively little influence on the phonological and syntactic systems of the languages.<sup>1</sup>

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<sup>1</sup> Editors' note: But see Reid (2005) for evidence of extensive phonological change in a Philippine language through contact with English.

The Spanish and the Americans were of course not the first foreigners to settle on Philippine soil. The Chinese established enclaves in major port areas, married local ladies, taught them how to cook their favorite foods (at least 13 different meat dishes and 27 different cooking techniques, Scott 1984:41), established large families and introduced their own concepts of kin and other social ties, all of which is reflected today in the scores of Chinese loans found in Tagalog and other Philippine languages (Manuel 1948; Chan-Yap 1972).

Traders speaking a variety of Malay probably used in Brunei had firmly established themselves in the Manila area at least a hundred years prior to the arrival of the Spanish (Wolff 1976), with considerable effect upon the language. Wolff documents not only hundred of Tagalog forms of Malay origin but also certain syntactic developments which appear to be the result of Malay influence. In addition, Malay was probably being used as a lingua franca throughout the Visayan area and the Sulu archipelago at the time of first European contact.

The introduction in the fourteenth and fifteenth centuries, probably by Malay speaking traders, of Indic influences and associated terminology ultimately of Sanskrit origin, and later of Islam with all its attendant religious and social terminology ultimately of Arabic origin, has indelibly affected the lexicons of all the languages of the Philippines, especially those spoken in the Sulu Archipelago and the coastal areas of Southern Mindanao and Palawan, where Islam is most firmly entrenched.

The political and economic hegemony of the Muslim Sultanates in the south of the Philippines spread not only the non-Austronesian lexicon of their religion into the interior languages where they had religious influence but a considerable number of Malay terms as well. Magindanao and Maranao have apparently also been the source for substantial numbers of loanwords with a Proto-Philippine etymology into these interior languages. Blust (1992) demonstrates that Tiruray has replaced nearly 30% of its basic vocabulary with loans not only from the Danaw languages, but also from Manobo languages, as well as from other languages of the South Mindanao subgroup of which it is a member. Such extensive replacement of basic vocabulary is not unique to Tiruray. As will be seen in the body of this paper, there are a number of other Philippine languages, specifically those spoken by Negrito hunter-gatherers, which have also been just as pervasively influenced by their neighbors as has Tiruray.

The development within the historical period of Ilokano as a trade language in the Northern Philippines, and of Cebuano in the Visayas and Mindanao in the south has resulted in extensive borrowing of forms from these languages into the languages of those geographical areas. However, the relatively recent introduction of Filipino (Tagalog) as one of the main mediums for education in Philippine schools is probably the most potent force for lexical change in Philippine languages that there has ever been. The great majority of young Filipinos, especially those with at least a high school education are now bilingual in Filipino, and tend to freely substitute Tagalog terms into their native tongues in conversations with their peers.

This overview has touched only very briefly on the general patterns of contact that have affected the languages of the Philippines. What has been mentioned only in passing, but which, for me, constitutes the most fascinating aspect of this whole topic, is the case of the Philippine Negritos. Probably the earliest inhabitant of the Philippines, the ancestors of today's Negritos must have chosen to discontinue speaking their original languages in favor of those of the Austronesian migrants that they came in contact with. The subsequent linguistic history of these groups reveals a checkered pattern of contact with a variety of languages, corresponding not only to the poorly perceived movements of the agricultural communities they must have lived among, but also to their periods of relative isolation when their own languages diverged from those of their neighbors'. Contacts have apparently been maintained also with other Negrito groups, mutually affecting each others' languages, possibly the result of intermarriage between the groups.

## **2. Philippine Negritos**

The Philippine population consists of two generally quite distinct racial types. There are the so-called Malay peoples, numbering over 50 million, and then there are the Negritos, probably totaling fewer than 15,000, and speaking perhaps more than twenty-five distinct languages, about one-quarter of the total number of Philippine languages—see Map 1. The former are often referred to in the literature as “lowlanders” to distinguish them from the Negritos, who are typically hunter-gatherers who live in foothill or mountain areas.

Neither the term “Malay” nor “lowlander” is appropriate to refer to the non-Negrito population of the Philippines. The former term implies that they came from or are

somehow descended from Malays, which cannot be true, since both populations, Malays and the non-Negritos of the Philippines, are descendants of an older population which existed some 6,000 years ago.

The latter term implies that there are no mountain-dwelling non-Negritos, which is also false. The massive mountain range in Northern Luzon known as the Cordillera Central is populated by a number of distinct ethnolinguistic groups, most of whom are not Negritos. They will be referred to simply as non-Negritos.

\* Map 1. Negrito languages of the Philippines

Negritos are found in a number of areas in Southeast Asia. In the Philippines they are broadly distributed from the far north of Luzon, through the Visayas in the Central Philippines, Palawan in the west, and in several areas of Mindanao in the south. There are a number of groups in the northern Malay Peninsula and across the Malay border in southern Thailand. Then there are a number of groups also in the Andaman Islands.

Various hypotheses have appeared in the literature about the provenance of Philippine Negritos. The one which probably is best supported is presented by Bellwood (1985). He considers them to be “the small statured representatives of a once widespread population which comprises the very varied populations of Australia and Melanesia today, but which has been absorbed almost entirely into a much more numerous Mongoloid population in Southeast Asia” (1985:74, 113). The difference in size between the Australian Aborigine who is tall and gracile, and the short-statured Philippine Negrito he considers to be the result of adaptation to the unique environments in which these groups lived. “Small stature” he says, “may have great adaptive value in mountainous tropical forest environments with limited nutritional resources.” A Japanese geneticist, Keiichi Omoto (1987:3), on the basis of his studies of unique genes in the blood of the different Negrito populations, favors a hypothesis that:

There were two separate migrations in the formation of aboriginal hunter-gatherer groups of the Philippines: one probably migrated from Sundaland via Palawan Island to the western part of the Philippines, and the other probably along the southern coast of Sundaland eastward, or elsewhere from Wallacea northward to Mindanao. In this hypothesis the western group represented by the Aeta [of western Luzon] and the eastern group represented by the Mamanwa [of north-eastern Mindanao] are of separate origins.

He further suggests (Omoto 1987:4) that the genetic differences between these two groups of Negritos would have required from twenty to thirty thousand years to develop, and implies that these two groups have therefore been separated for at least that amount of time.

The non-Negrito (“Mongoloid”) peoples, however, are relatively recent newcomers to the islands, being descendants of the movement of Austronesian-speaking people in the area, probably less than 5,000 years ago.

### 3. Names of Negrito Groups

Various names, almost all of them pejorative, are commonly applied by outsiders to Negrito groups. For example, in Northern Luzon the terms *Pugot* ‘dwarf’, *Balugà* ‘half-breed’, *Dumágat* ‘sea-faring person’, and *Aeta* or *Ita*, both coming from the Negrito name *Ayta*, are indiscriminately given to Negrito groups regardless of their language. There are also a large number of terms which are used by non-Negritos which have only local usage and apply only to the Negrito group(s) who lives in close geographical proximity to themselves.

The terms which are of most interest however are those that the Negritos use to refer to themselves. In Luzon, the names are *Agta*, *Atta*, *Arta*, *Alta*, and *Ayta*. All of these names appear to have developed from a single term \*qaRta(q) ‘Negrito person’, the variant medial consonant depending on the reflex of the proto-phoneme \*R in those languages. These names are of interest because it is the specific reflex of \*R in each of these languages which provides an important clue to the genetic sub-grouping relationship that each language has to other languages of the Philippines. Outside of the Philippines, in some of the languages of Indonesia and the Pacific, reflexes of \*qaRta(q) appear with meanings such as ‘outsider, enemy, slave’,<sup>2</sup> while in Mindanao, it is found in a number of languages with meanings such as ‘black chicken’ or ‘black spirit’.

It is of interest to note that the terms *Agta*, etc., are used by Negritos to mean person, specifically Negrito person. Most Negrito languages also have a different term for non-Negrito person. The Central Cagayan Agta refer to the Ilocanos as *Ugsin*, the Casinguran Agta call them *Ugdin*, while the Alta refer to non-Negritos as *Uldin*. These terms

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<sup>2</sup> I find it difficult to accept Blust’s (1972) semantic reconstruction of ‘slave, enemy’ for the Proto-Malayo-Polynesian term, since it is the name Negritos use for themselves. They reject all other pejorative terms.

appear to have developed from a Proto-Philippine form \*quRtin, which is also reflected in Ibanag *uzzin*, Atta *ujojjin* ‘red’, giving an interesting insight into the possible reason for the name. Perhaps the in-migrating Austronesians were originally perceived as having red skins. The Arta call a non-Negrito person *agani*, which appears to be cognate with Ilokano *agáni* ‘to harvest rice; one who harvests rice’, lending credence to the idea that the non-Negrito’s rice agriculture has long been the key factor motivating the Negritos’ symbiotic relationships with their neighbors (Headland and Reid 1989a, 1989b).

#### **4. Views of the Linguistic Relationships of Philippine Negrito Languages**

Probably the first characterization of a language spoken by Negritos was given by a Spaniard by the name of Pedro Chirino in a book published in Rome in 1604. He noted that most Philippine languages are similar to one another “as in Italy the Tuscan, the Lombard, and the Sicilian, or as in Spain the Castilian, the Portuguese, and the Galician; only that of the Negritos is entirely different, as in Spain the Basque” (1969:274). And he compared it to the situation in Spain with the Basque language which is completely unrelated to Spanish. It soon became obvious though that they were not completely unrelated to other Philippine languages, that Negritos in fact spoke Austronesian languages, similar in type to the languages of the non-Negritos. Indeed it was often thought that the languages that Negritos spoke were almost identical to the languages of their closest non-Negrito neighbors (Worcester 1906:861). This is true in a few cases, but far from true in others.

We have no way of telling at this point in history what the languages of the Negritos were like prior to the arrival of Austronesian speakers, and the adoption by the Negritos of Austronesian languages. But, assuming that at least some of today’s Negritos are descendants of early Homo Sapiens who have been wandering Philippine forests for at least 20,000 years, we can be pretty certain that each geographically distinct group must have had its own language, and that because of the extremely long time period, the languages must have been very different one from the other. The situation must have been somewhat similar to what is found today in New Guinea, where literally hundred of very diverse languages are spoken by relatively small populations.

There is also no way that we will ever be able to precisely date the time when Negritos first learned Austronesian languages. The fact that they all speak Austronesian

languages tells us nothing about when or why they came to give up their original languages.

## 5. Linguistic History of the Alta and Arta Negritos

In recent years I have become fascinated with the problem of what the languages of Negritos can tell us about the prehistoric relationships between these groups and their neighbors. In 1987 I spent the summer getting data from a number of Negrito groups that had not been described either in the ethnographic or linguistic literature. Three of these groups, Northern and Southern Alta and the Arta, speak languages that are very different from each other and from their neighbors. In earlier papers (Reid 1988b, 1989), I discussed the genetic relationships of these languages. Here I shall summarize the evidence for their genetic relationships, and extend the discussion to cover borrowed lexical items which reveal something of the contacts that these languages have had with other ethnolinguistic groups.

In order to understand where these languages fit in the general scheme of language relationships in the Philippines, it is necessary to understand something about language subgrouping in the north of the Philippines, and what it is that distinguishes each of these groups.

There are between 35-45 languages in the north of Luzon depending on how one draws the line between dialect groups. Probably all belong to a single language family, called either North Luzon or Cordilleran (see Figure 1). There are two major branches in this family, one is called Northern Cordilleran. It has at least two subfamilies, one consisting of all of the languages of the Cagayan Valley, the other consisting of the languages of the northeast coast of Luzon. All of these languages are descended from an early language in which \*R became *g*. The other major group of Cordilleran is called Meso-Cordilleran. The parent language of this group changed \*R to *l*, and all of the daughter languages maintain this change in the words that they inherited from their parent language. Ilokano does not clearly belong to either group. It may be more closely related to the Meso-Cordilleran family, or it may be a separate branch of Cordilleran.

[Figure 1 about here](#)

There are representatives of two other Philippine language families in Luzon. Kapatangan and the languages of the Zambales peninsula belong to a family called Sambalic, and Tagalog and Bikol in the south of Luzon belong to a group called Central Philippines, which includes the Bisayan languages and a number of the languages of Mindanao.

## 5.1 Alta

The Alta languages (Reid 1988b) are spoken over a fairly wide area of the Sierra Madre from south-eastern Nueva Ecija Province close to the boundary with Bulacan Province, to the boundary of Aurora and Nueva Vizcaya Provinces north of the town of Maria Aurora. Northern Alta (ALT<sub>N</sub>) and Southern Alta (ALT<sub>S</sub>) are very distinct languages one from the other.

Although the Northern Alta live in the same general area (the Baler River Valley and environs) as the southern Ilongot, who speak a language of the Southern Cordilleran (SC) family (one of the branches of Meso-Cordilleran [MC]), their primary contacts, especially in the Dingalan area and in Nueva Ecija are with speakers of Tagalog. Most Southern Alta also interact primarily with Tagalog speakers. Consequently, most Alta are bilingual in this language. This contact has continued for long enough that both languages show a considerable number of Tagalog borrowings. There also appears to be significant contact between the Alta groups and other Negrito groups, especially those speaking dialects of the Umiray Dumaget language who are scattered down the eastern coast of Quezon Province.

The genetic relationship of the Alta languages, however, is probably with the Central Cordilleran (CC) and Southern Cordilleran languages (the two main branches of Meso-Cordilleran), which include Kalinga, Bontok, and Ifugao (Central Cordilleran), and Pangasinan, Inibaloi, and Ilongot (Southern Cordilleran). The Alta are the only extant Negrito languages to be related to this group.

Their genetic relationship is indicated by their *l* reflex of \*R, the reflex also found in all the Central and Southern Cordilleran languages (see Table 1).

[Table 1 about here](#)



All of the Meso-Cordilleran languages, including Alta, also share an innovation in the system of verbal prefixes. The reflex of the Proto-Philippine actor focus prefix \*maR- in these languages should be *mal-*. Instead, all show *man-*.

There are several very conservative features of the Alta languages which suggest that these Negritos switched to speaking an Austronesian language at a quite remote time, that is before the dispersal of the Southern and Central Cordilleran language families (Reid 1987a). These features are as follows.

Several of the lexical items cited in Table 1 have been replaced by all of the other Meso-Cordilleran languages. These include the words for ‘bathe’, ‘coconut’, ‘cough’, ‘dream’, ‘drive away’, ‘heavy’, ‘lie (falsehood)’, ‘thorn’ and ‘typhoon’. Only in Alta are these terms preserved with the *l* reflex of \*R, the way they must have been pronounced in Proto-Meso-Cordilleran. The replacement of the term for ‘coconut’ is significant in that today most of the Southern and Central languages are spoken in the Cordilleran Central above the altitude at which coconuts successfully grow. It is probable though that their parent language was spoken in the lowlands in an area where they became associated with the local Negrito bands. After the Negritos had switched to speaking their non-Negrito neighbors’ language, these neighbors were forced out of the area and into the mountains where no coconuts were growing. They lost their original word for coconut, *niyul*, and only at a much later period, after they had begun trading with Ilokanos did they borrow the word used by Ilokanos, either *niug*, or *inyug*, with a final *g*.

There are a number of other inherited lexical items that are found in the Alta languages that have also been replaced by all other Meso-Cordilleran languages. These include:

1. ALTN *ʔuláp*, ALTS *ʔolop* ‘cloud’ from PPH \*quləp.
2. ALTN *ʔinta* ‘see’ from PPH \*kita (PS-CCo \*ʔi:la).
3. ALTS *pudol* ‘dull (not sharp)’ from PPH \*pudəl.<sup>3</sup>
4. ALTS *ʔápun* ‘afternoon’ from PPH \*hapun.<sup>4</sup>
5. ALTN, ALTS *bul* ‘knee’ from PPH \*buqəl (PS-CCo \*pu:wəg).<sup>5</sup>

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<sup>3</sup> ALTN *púrol* ‘dull (not sharp)’ appears to be a borrowing of the Southern Alta form. The expected form in Northern Alta would be *pural*.

<sup>4</sup> Only Casiguran Dumagat (Agta) among all of the other Cordilleran languages has a reflex of PPH \*hapun (DGTC *ʔa'pon*). These forms may turn out to be early borrowings from Tagalog. A more recent borrowing in Southern Alta would have retained the initial *h*.

6. ALTS *susbo* ‘boil’ from PPH \*səbu.<sup>6</sup>
7. ALTS *ʔoddémun* ‘to borrow’ from PPH \*hədam.<sup>7</sup>
8. ALTS *tedok* ‘burn’ from PPH \*tidug.<sup>8</sup>
9. ALTS *ʔullad* ‘wing’ from PPH \*qəlad.<sup>9</sup>

The Alta languages also retain a number of forms that underwent some irregular phonological development in the parent of the other Meso-Cordilleran languages. These include:

1. ALTN, ALTS *tólaŋ* ‘bone’ from PCo \*tuʔlaŋ (< PPH \*tuqəlaŋ), reflected in all the other Meso-Cordilleran languages with the last two consonants metathesized—\*tuʔŋal.
2. ALTN *basul* ‘sated’ from PCo \*bəsuR. All other Meso-Cordilleran languages reflect \*busul.
3. ALTN, ALTS *ʔalap* ‘get, take’ from PCo \*ʔalap. All other Meso-Cordilleran languages reflect \*ʔala with loss of the final consonant.
4. ALTN *ʔapitti*, ALTS *ʔápití* ‘short (object)’ from PCo \*ʔapiti. All other Meso-Cordilleran languages reflect *ʔaptikəy* with various irregular developments, PCCo \*ʔaptik, PSCo \*tikəy.

Alta, like many other Negrito languages, also maintains unreduced forms of the completed aspect of verbal prefixes. All other Meso-Cordilleran languages have reduced them to *n*-initial forms (see Table 2).

### [Table 2 about here](#)

The other conservative aspect of the Alta languages is their pronominal system. The pronouns of Alta do not reflect innovations that have occurred in all of the other languages of this subgroup. Compare the long nominative pronouns of Alta with the forms reconstructed for Proto-South-Central Cordilleran (PS-CCo), and Proto-Cordilleran (PCo), the parent of ALL the Cordilleran languages (including Northern Cordilleran) (see Table 3).

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- <sup>5</sup> But note also ALTS *boʔol* ‘heel’, which appears to be a borrowing because of the unreduced VʔV sequence. A possible source is Botolan Sambal, one of the Ayta languages of the Zambales in western Luzon, which has *boʔi* ‘heel’.
  - <sup>6</sup> The only other reflex of this form in Northern Luzon is found in Botolan Sambal *hombo* ‘to boil’, and may be further evidence of early contact with this Negrito group.
  - <sup>7</sup> This form has no other reflexes in any of the Cordilleran languages. However, the loss of \*h, its *o* reflex of \*ə, and gemination of the consonant following \*ə, clearly indicate that it has not been borrowed from a non-Cordilleran language.
  - <sup>8</sup> Cf. PNCO \*tidug, Obo *tiduk* ‘burn’.
  - <sup>9</sup> Cf. BTK, TBWA *ilad* ‘wing’.

### [Table 3 about here](#)

Alta does not share in the loss of final *-w* from the second person singular (2s) form, as do all other Central and Southern Cordilleran languages. Neither does Alta share in the loss of the penultimate syllable *-mu-* from the second person plural (2p) form as do all other Central and Southern Cordilleran languages. Alta instead lost the final three segments of the original pronoun. Furthermore, Alta does not share in the innovation that occurred in the pronominal formative marking first person inclusive plural (1,2p). In South-Central Cordilleran the original form became *-tayu*. In Alta the form is *-tam*, a reflex of the form reconstructed for Proto-Cordilleran.

It seems likely then that Northern and Southern Alta are the only languages in the Meso-Cordilleran group to retain pronominal forms that were probably present in the proto-language of that group.

## 5.2 Evidence for contact between the Alta and other groups

Having determined the phonological development of Proto-Cordilleran phonemes in Southern Alta, it now becomes possible to recognize non-inherited words in the language. A larger number of forms can be shown to be borrowed because they have a *g* reflex of *\*R*, rather than the expected *l* (see Table 4).

### [Table 4 about here](#)

Identifying their source, however, often depends on other phonological or semantic developments in these words, because *\*R* became *g* in all of the Northern Cordilleran languages as well as in Tagalog and the other members of the Central Philippine language family. The Southern Alta term for ‘medicine’ is probably borrowed from Tagalog because it shares in the semantic development which characterizes this term in Tagalog. All Northern Cordilleran languages reflect it with the meaning ‘root’. The term for ‘liver’ on the other hand is probably from a Northern Cordilleran language because it does not show the irregular loss of *g* that characterizes the Tagalog reflex of this form. Similarly the term for ‘lean’ must be from a Northern Cordilleran language because Tagalog shows an irregular reflex for the final consonant. The term for ‘boil’ (N) must be from a language that reflects *\*ə* as *a*, and has lost its *g* reflex of *\*R*. The facts suggest Gaddang,

one of the Northern Cordilleran languages, but the term is not found in the Gaddang dictionary. The term for ‘sun’ could only have come from a Northern Cordilleran language because it reflects a lexical innovation in that subgroup. The remaining forms (‘coconut’, ‘lime’, ‘lung’, ‘outrigger’, ‘sail’, ‘vein’) could have come from either source. The word for ‘fish’ was apparently borrowed into Tagalog from a Sambalic language, probably Kapampangan, which reflects \*ə as *a*. Southern Alta could have borrowed from any of these languages, including Tagalog.

Other clues to borrowed forms are the vowel *a* following a voiced obstruent (the expected reflex is *e*), and the presence of an unreduced diphthong, *aw* or *ay* (see Table 5).

### [Table 5 about here](#)

These forms have apparently been borrowed fairly recently, because even forms which are ultimately of Spanish origin that have found their way into the language have adapted to the phonology (e.g., *mogbédilan* ‘to oppose’, from Tag *baríl* ‘gun’, and *ta-debého* ‘work’, from Tag *trabaho*). Some of these forms (‘blood, bolo’) have come from a Meso-Cordilleran language, in that they have an *l* reflex of \*R. Others (‘housefly’, ‘ride’, ‘water jar’, ‘rice bran’, ‘comb’, ‘dance’) could have come from either Tagalog or one of a number of Northern Philippine languages that show identical forms. The term for ‘frog’ could not have been borrowed from a Northern Cordilleran language, all of which reflect the medial consonant as a voiceless stop, but must have come from either Tagalog, Kapampangan or Pangasinan, all of which show a voiced stop. The term for ‘bridge’ is almost certainly from Tagalog, since all other Northern Philippine languages reflect a different etymon. Others could not have come from Tagalog because of the Tagalog developments in these words (e.g., ‘provisions’ TAG *baon*, and ‘fruit seed’, note TAG *bulaklak* ‘flower’).

There are a considerable number of forms that can only be loans from Tagalog, because they contain an *i* reflex of \*ə (the expected reflex in Southern Alta is *o*), an *l* reflex of \*d (the expected reflex is *d*, e.g., ‘incorrect’) (see Table 6), or because they show an irregular development otherwise unique to Tagalog (see Table 7).

### [Tables 6 and 7 about here](#)

A considerable number of other forms are probably loans from Tagalog because they contain an *h*, a phoneme which was lost in Proto-Cordilleran (See Table 8).

#### [Tables 8 about here](#)

Most of these forms are phonologically identical to Tagalog, except for systematic replacement of Tagalog *r* with *d*. A few have cognates in other languages such as Kapampangan or Bikol, and may have come from one of them.

A number of forms whose phonological shape does not provide any clue to the fact that they are borrowed, probably come from either Tagalog (TAG), Kapampangan (KPM) or some other language, because of their distribution. These forms are typically not found in any other Cordilleran language (see Table 9).

#### [Table 9 about here](#)

Although the largest body of loans indicates intensive interaction with speakers of Tagalog in relatively recent times, there is considerable evidence that the Alta have in the past maintained close contact with the Casiguran Dumagat Agta (DGTC), who speak a Northern Cordilleran language. There is some evidence that the direction of borrowing was from Alta into Agta, because there is a small set of forms, mostly body parts ('flesh', 'forehead', 'pubic hair', 'thigh') that are uniquely shared by both Northern and Southern Alta with Casiguran Agta (see Table 10).

#### [Table 10 about here](#)

It is probably better to assume that these are originally Alta terms that have been borrowed by Agta, rather than Agta terms that have been independently borrowed into both of the Alta languages. Although there are a number of forms that are uniquely shared by Southern Alta with Casiguran Agta, a much larger set of forms is uniquely shared by Northern Alta and Casiguran Agta. (Northern Alta is geographically much

closer to Casiguran than is Southern Alta.) It is probable therefore that it was Northern Alta which was the source of the shared body part terms.

The forms in each language have undergone the phonological changes peculiar to each language, so it is clear that contact must have taken place prior to the beginning of these phonological changes. It is even possible that the borrowing may have taken place prior to the dispersal of the Alta languages, in which case there is no evidence for direction of borrowing. The antiquity of the contact between the Alta languages and Casiguran Agta is also suggested by the fact that some of the forms show unique developments in one or the other language (compare the Southern Alta and Casiguran forms for ‘summit’ and ‘wave’).

The complexity of the situation increases when one compares the Northern Alta and Casiguran forms. There seem to be two different loan correspondences involving PCo \*1. Seven sets have an *l* – *l* correspondence, six sets show *l* – *h*, and there are one each showing *w* – *h*, and *ʔ* – *l*. Some of these may be the result of independent borrowing by each of these languages from a third language, or borrowing at different times. Explaining the term for ‘rainbow’ shared by Southern Alta and Casiguran Agta is another problem. The forms are probably independently borrowed from Tagalog *bahaghari* ‘rainbow’, but both have replaced the inherited *h* in the first part of the form with *l*, but have not replaced the same phoneme in the second part of the form.

It is apparent that considerable work still needs to be done to clarify the kind of relationship that has existed between each of these groups.

### 5.3 Arta

The Arta (Reid 1989) are a very small group of Negritos (presently numbering fewer than fifty families), living along the Addalem River in the proximity of Aglipay and Maddela, Quirino Province in eastern Luzon. References to them in the anthropological and linguistic literature of the Philippines are almost non-existent. They are not included in Fox and Flory’s (1974) otherwise comprehensive map of Philippine language groups, nor are they mentioned in McFarland’s (1977) excellent linguistic atlas of the Philippines.

A short wordlist gathered by Headland (1977), and lexical and grammatical data gathered by myself in 1987 are the only materials presently available on this language.

One of the first things that struck my attention about this language was the unique forms that it has for some of the numerals.

But this was just the beginning. An analysis of the lexical data that I collected showed that approximately 29% (148/512) appear to be unique forms not shared by any other Philippine language (see Table 11).

[Table 11 about here](#)

An examination of the Arta reflexes of the Proto-Malayo-Polynesian reconstructions of 200 basic items (Blust's (1981) modified Hudson list), indicates that Arta retains only 26.9% (51/189), almost 8% fewer than any other Philippine language for which similar scores have so far been calculated. By comparison Ilokano has retained about 44.7% (74/184), whereas Tagalog has retained 46% (92/200).

Let us take a look at some of the sound shifts that have taken place in Arta, and what they can tell us about its relationship to other Philippine languages. The historical development of three Proto-Austronesian consonants in Arta, specifically \*R, \*j, and \*k is of considerable significance, not only in tracing the genetic relationships of this language, but also in separating out inherited vocabulary from the fairly large body of items that Arta has borrowed from languages with which it has been in contact.

### 5.3.1 The reflexes of \*R

Arta shows two reflexes of \*R, in forms either directly or indirectly inherited from Proto-Austronesian, Proto-Philippines, and Proto-Cordilleran. The most common reflex is *r* (see Table 12).

[Table 12 about here](#)

The other reflex of \*R is *g* (see Table 13). The only other language in Luzon which has an *r* reflex of \*R is Ilokano. This is the reflex found in all the Northern Cordilleran languages, specifically the non-Negrito languages Isneg, Ibanag, Itawis, Yogad, and Gaddang. It is also the reflex in the languages of the east coast of Luzon, both Negrito and non-Negrito. It will become apparent below that there is a considerable substratum of Northern Cordilleran lexical items in Arta. I therefore assume that words having a *g*

reflex of \*R are NOT directly inherited, but are borrowings from one or more of the Northern Cordilleran languages. Some of these words, such as the word for ‘wash’, show other evidence of being borrowings.

[Table 13 about here](#)

### 5.3.2. The reflex of \*j

The main reflex of \*j in Arta appears to be *d* (see Table 14).

[Table 14 about here](#)

Only two forms show *g* and these are both probably borrowings from Ilokano. *g* is the reflex of \*j in Ilokano, all the Northern Cordilleran languages, as well as all of the Central and Southern Cordilleran languages within the Meso-Cordilleran subfamily. The only languages in Northern Luzon which are presently known to have a *d* reflex of \*j, apart from Arta, are the Alta languages, and the Agta language spoken in Casiguran.

### 5.3.3. The reflex of \*k

At least 20 reconstructed forms containing \*k appear in the data with a zero reflex (see Table 15).

[Table 15 about here](#)

Although there are a number of Philippine languages in which \*k fell together with glottal stop (including several Kalinga and Ifugao dialects), this is the only Philippine language which, to my knowledge, lost \*k. There are, however, a considerable number of forms in the language in which the phoneme *k* appears. A large proportion of these forms give evidence of having been borrowed from a Northern Cordilleran language, or from Ilokano, although a few appear to be unique to Arta. Glottal stop was also lost in words inherited from the proto-language, resulting in the reduction of several vowel sequences to single vowels.



The loss of \*k in Arta had a considerable effect on the pronouns in the language, since six of the eight pronominal formatives include this phoneme in their reconstructed forms (see Table 16).

[Table 16 about here](#)

The change was most noticeable in the first singular (1s) and second singular (2s) short, enclitic nominative forms. The Proto-Cordilleran reconstructed forms are respectively \*ak and \*ka. In order to maintain a distinction between first and second person after the loss of \*k, the free nominative first singular pronoun (*tan*) spread into the enclitic nominative set.

Within the genitive set (Table 17), it is of interest to note that it is only Arta among all of the Cordilleran languages that retains the full form of the reconstructed second plural (2p) pronoun \*muyu. This form occurs elsewhere in the Sambalic languages of Northern Luzon.

[Table 17 about here](#)

Arta has replaced the initial case formative (\*si-) on the free nominative pronouns with the singular personal case marker *ti*, which also introduces nominative singular personal noun phrases in the language. In this respect it is also like Southern Alta. Casiguran Dumagat (Agta) and Northern Alta, while using *ti* as the case marker for nominative singular personal noun phrases, have retained *si* as the formative on their free nominative pronouns.

Arta, Casiguran Dumagat (Agta) and the Alta languages are similar also in having retained what was probably the Proto-Cordilleran personal locative marker *di* (reduced to *d* on some pronouns) as the case formative on locative pronouns (see Table 17).

An interesting case of vowel harmony also developed following voiced stops, *b*, *d*, and *g* (see Table 18). If the final vowel of the root was *u*, the penultimate vowel also became *u*.

[Table 18 about here](#)

Having identified the phonological developments in inherited words in Arta, it now becomes possible to identify words that have come into the language as a result of contact with other languages (see Tables 19-21).

### **Tables 19-21 about here**

Whereas the Alta languages have been strongly influenced by Tagalog, Arta has borrowed extensively from Ilokano, the trade language of the area, and from Gaddang, a Northern Cordilleran language spoken in the areas adjacent to the Arta's present hunting range. Each of the languages, however, has had a long period of interaction with Casiguran Agta that suggests a pattern of contact that may have predated the in-migration of the Austronesians.

## **6. Conclusion**

The implication of all of this is that we now have irrefutable evidence of the kind of relationships that have been maintained by bands of Negritos with their non-Negrito neighbors spanning periods of thousands of years.

Anthropologists have frequently characterized the Negritos as having lived in relative isolation from their neighbors until the last one hundred years or so, or at the most from the period of first European contact with the Philippines around 500 years ago. This view was consistent with the widely-held opinion that hunter-gatherers, since they practice a life-style which is assumed to have pre-dated the development of agriculture, are themselves somehow our living ancestors, and that the only reason they continue to follow that lifestyle is because of their isolation.

I have argued in several papers co-authored with anthropologist Tom Headland that the languages that the Negritos speak, especially those that are discussed in this paper, could not possibly have developed over a matter of a few centuries. They clearly retain features of languages spoken in the Philippines by early Austronesian migrants that have been lost in most other daughter languages of the family.

Today the Negritos continue to maintain close trading relationships with their non-Negrito neighbors. Forest products such as rattan, honey, medicinal herbs, and wild pig and deer meat are continually traded for agricultural products, particularly rice, as well as for other commodities such as whiskey, salt, and matches. Now a simple trading relationship is not of itself a reason for giving up one's own language in favor of the

trading partners' language. Most Negritos today are multilingual, speaking not only their own language, but also Ilokano and Tagalog, as well as one or more of the regional languages adjacent to their hunting range. They use these languages when necessary, and as we have seen they have left their mark on the Negritos' native languages. So why did they give up their original languages in favor of those of the in-migrating Austronesians? The answer is far from clear. But we probably have to assume that early contact between Negritos and Austronesians was more than just for trading purposes.

The following is a hypothetical scenario, but it provides a possible account of the reasons for the language switch. We know from reconstructed linguistic evidence that when the Austronesians first entered the Philippines, maybe 5,000 years ago, they were a technologically far more advanced people than the Negritos were. They were potters; there is no evidence that Negritos were pot-makers. They probably had far more advanced boat-building and ocean fishing techniques than the Negritos had, if they had any at all. They may have had a knowledge of metal and how to work it into tools, weapons, and decorations, and they may have known how to weave cloth on a backloom. In addition, and this is most important, they were agriculturalists with a knowledge of rice agriculture, possibly both wet and dry. Prior to their arrival much of the Philippines was covered in dense, tropical rain forest, a haven for wild animals and birds, but food poor for humans. Various studies have been done which show that tropical rain forests are carbohydrate deserts. And this in fact may be the reason for the Negrito's short stature.

With the arrival of the Austronesian rice farmers, the Negritos found a badly needed source of carbohydrates, whereas the farmers were able to tap into a pool of field laborers who were ready to help cut down forest and convert it into rice fields for a share of the rice at harvest time. Thus developed a period of mutual sharing that was far more than a trading relationship. Negrito and non-Negrito must have lived together in their villages, worked together and played together. The children of the community would have grown up speaking the same language, regardless of what their parents spoke at home, and after a couple of generations, it was the Austronesian language that prevailed. The original Negrito languages fell into disuse. This scenario is not too far fetched, because it is just this type of symbiotic relationship that is still maintained in many areas. Negritos have their patrons in the towns with whom they always trade, for

whom they work when work is available, and with whom they stay whenever they are in the town.

Relationships, however, have not always been smooth. Conflict has in the past resulted in the Negritos moving away to establish contact with friendlier people. Maybe in the past it was more often the Austronesians who were forced to move on. The Negritos have had a ferocious reputation. And the Austronesians themselves were not averse to taking heads, acts which would undoubtedly have led to long period when the groups kept to themselves or perhaps resorted to more formal trading relationships. It was during these periods that the languages of the two groups, now both Austronesian, would have begun to diverge from one another and eventually have split into the multiple languages that we find today. But it is a process that has taken thousands of years, it is not something that has taken place in the historical period in the Philippines.

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**Table 1. Examples of the *l* reflex of \*R in Alta**

Gloss	Northern Alta	Southern Alta	Proto-Philippines
bathe	dilus		*diRus
bite	ʔalat	kalat	*karat
breast	lasát	lasát	*Ratas <sup>1</sup>
coconut	niyul		*niuR
cough		ʔekol	*qikəR
dream	tale:nip	nanalaynop	*taRaqinəp
drive away		tabul	*tabuR <sup>2</sup>
heavy	dalmit	dalmot	*daRmət
loincloth	bal		*bahaR
lean	saŋgil		*sanjiR
left hand	ʔawilih	ʔawili	*wiRi
lie (falsehood)	mabótil	kebutil	*butiR <sup>3</sup>
man	ʔalta	ʔalta	*qaRta(q)
monkey		lutuŋ	*Rutuŋ <sup>4</sup>
new	balu	belo	*baʔəRu
sated	basul	mubsul	*bəsuR
thunder	ʔidul	kumukdul	*()duR
thorn		duli	*duRi <sup>5</sup>
typhoon		be:lu	*baRiju
wash	ʔulas	ʔulas	*huRas

<sup>1</sup> Both Alta forms show a metathesis of the same type as occurs in the Cordilleran reflexes of several other Proto-Philippine forms containing a sequence of *t* and *s*, such as PPH \*Ratus ‘hundred’, PCO \*Rasot; PPH \*taŋis ‘cry’, PCO \*saŋit; PPH \*hataqas ‘long (object)’, PCO \*ʔasaʔat, cf. ALTS *ʔasat*, but KPM *atas*, SL *hataas* ‘long’.

<sup>2</sup> Cf. KPM *tabi* (earlier *tabuy* continues as a borrowed form from Kapampangan in Tagalog), SB *tabug* ‘drive away’.

<sup>3</sup> Cf. HLG *butigon*, BIK (Iriga) *butig* ‘lie’; ILK *butir*.

<sup>4</sup> Cf. SUBS, SUBSC *gutuy* ‘monkey’.

<sup>5</sup> Cf. SBLBT *doi*, PMBO *\*dugi* ‘thorn’.



**Table 2. Reduction of actor focus-perfective aspect  
in South-Central Cordilleran**

<b>PCo</b>	<b>Proto-Alta</b>	<b>PS-CCo</b>
*m < in > aR–	*m < in > an–	* < n > an–
*m < in > aN–	*m < in > aN–	* < n > aN–
*m < in > a–	*m < in > a–	* < n > a–

**Table 3. Nominative pronouns in Alta and Cordilleran**

	<b>Alta</b>	<b>PS-CCo</b>	<b>PCo</b>
<b>1s</b>	siʔən	siakən	siakən
<b>2s</b>	siʔaw	siʔika	siʔikaw
<b>1,2s</b>	siʔeta	siʔikita	siʔikita
<b>3s</b>	sia	sia	sia
<b>1p</b>	siʔami	siʔikami	siʔikami
<b>2p</b>	siʔam	siʔikayu	siʔikamuyu
<b>1,2p</b>	siʔetam	siʔikitayu	siʔikitam
<b>3p</b>	siddə	siʔida	siʔida

**Table 4. Borrowings in Southern Alta marked by \*R > g**

<b>Gloss</b>	<b>Southern Alta</b>	<b>Tagalog</b>	<b>Proto-Philippine</b>
medine	gemut	gamut	*Ramut ‘root’
liver	ʔagtay	atay	*aRtay
lean	sadig	sandal	*sa(n)diR
boil (N)	pása	pigsá	*pəRsa
sun	sinag	araw	PNCō *sinaR (Himes 1988)
coconut	niyug	niyóg	*niyuR
lime	ʔapug	apog	*apuR
lung	bege	bagà	*baRaq
outrigger	kátig	katig	*katiR
sail	láyag	layag	*layaR
vein	ʔigét	ugat	*quRat
fish	dalág	dalág	PNP <sub>H</sub> *dələg

**Table 5. Borrowings in Southern Alta marked  
by irregular reflexes of PPH \*a**

Gloss	Southern Alta	Proto-Philippine
blood	dalá	*daRa
bolo	bákal	*bakaR ‘slash’
housefly	laŋáw	*laŋaw
ride	sakay	*sakay
water jar	balaja	*balaŋaq
rice bran	dédak	*dadak
comb	suklay	*suklay
dance	sayaw	*sayaw
bridge	tulay	*tulay
frog	tugak	*tukak
provisions	balun	*balun
fruit seed	budakna	*budak ‘flower’

**Table 6. Borrowings in Southern Alta marked  
by irregular reflexes of PPH \*ə or \*d**

Gloss	Southern Alta	Tagalog	Proto-Philippine
sesame	liŋa	lingá	*ləŋa
cockroach	ʔépis	ipis	*qipəs
fathom	dipa	dipá	*dəpa
slave	ʔalepin	alipin	*adipən
husked rice	begés	bigás	*bəRas
incorrect	naymali	malì	*ma-diq

**Table 7. Borrowings in Southern Alta of Tagalog forms  
with irregular developments**

Gloss	Southern Alta	Tagalog	Proto-Philippine
steal	nakaw	nakaw	*takaw
yellow	dilaw	diláw	*dulaw (DGTC)
bunch	buwig	buwíg	*buliR
fry rice	saŋág	sangág	*saŋlaR

**Table 8. Borrowings in Southern Alta of Tagalog forms with *h***

Gloss	Southern Alta	Tagalog
animal	háyup	hayop
chicken flea	hánip	hanip
dew	hamug	hamog
difficult	hedip	mahirap (KPM, TAGS)
expensive	mahál	mahal
floor	sahig	sahig
noon	taṇhále	tanghali
pungent, spicy	haṇhaṇ	hanghang
ripe	hinog	hinog (BIK)
seed	binhi	binhi
shrimp	hepun	hipon (BIK)
thirsty	?ohaw	uhaw
unmarried girl	mahona	mahunâ ‘fragile, frail’
weave	hábi	habi
weak, slow	héna	mahinà
wash face	hílamus	hílamos
wash hands	hináw	hinaw

**Table 9. Borrowings in Southern Alta of forms without cognates  
in other Cordilleran languages**

Gloss	Southern Alta	Non-Cordilleran Forms
blanket	kómot	kumot (TAG)
broom (sweep)	walisan	walis (TAG)
bumble bee	bubúyug	bubuyog (TAG)
broken	sede	nasira (KPM)
cat	muniŋ	muning (TAG)
cheap	mode	mura (TAG)
crab	ʔalimaŋu	alimango (TAG)
cotton	búlak	bulak (KPM)
deer	ʔúsa	usa (KPM)
do, make	géwan	gawa (KPM, BIK)
eggplant	talún	talong (KPM)
fever	ʔollagnaton	lagnat (KPM)
flower	bulaklak	bulaklak (KPM)
frying pan	kawáli	kawalì (KPM)
ginger	loya	luya (BIK)
heart (coconut)	ʔubod	ubod (KPM)
happy	saya	masaya (KPM)
house lizard	butiki	butiki (KPM)
industrious	sípag	masipag (KPM)
intoxicated	lasiŋ	lasing (KPM)
kick	tindakan	tindak (TAG)
ladle	sanduk	sandok (KPM)
lazy	tamád	tamad (KPM)
lonely	lonkot	lungkot (KPM)
loss (business)	lógi	lugi (KPM)
mold	ʔámag	amag (DGTC)
moss	lómot	lumot (KPM)
navel	pósun	pusón 'lower abdomen' (TAG)
nipa	páwid	pawid (TAG)
needle	kadéyum	karayom (KPM)
pregnant	buntis	buntis (TAG)
rat	dege	dagâ (TAG)
regret	sesi	sisi (TAG)
rice (plant)	paláy	palay (TAG), (KPM pale)
rice straw	deyámi	dayami (KPM)
sea	déget	dagat (BIK)
swidden	kaʔénjin	kaingin (TAG)

say	sábin	sabi (TAG)
sell	pagbilí	magbili (TAG)
squat	tiṅkayad	tingkayad (TAG)
swallow	lónok	lunok (TAG)
salty	ʔálat	maʔalat (KPM, PNG)
saw	lagedi	lagari (KPM, BIK)
study	qádal	aral (KPM)
use	gemiton	gamit (KPM)
viand	ʔúlam	ulam (TAG)
wine	ʔálak	alak (KPM)
young coconut	búku	buko (TAG)

**Table 10. Borrowings in the Alta languages  
shared with Casiguran Agta**

Gloss	Southern Alta	Northern Alta	Casiguran Agta
flesh	pflas	pilas	pilas
forehead	koddop	?idip	kidip
pubic hair	sabút	sabút	sabut
repeat	luwayun	luwáyin	huwayin
thigh	pokol	pu?il	pukil
mold	?ámag		amag (TAG)
molar tooth	buŋŋal		be:ŋal
rainbow	balaghári		balaghári
summit	taltay		taytay
wave	tagbok		tagmék
boil (v.)		labut	libut
burn		tamu?	tamo ‘restart fire’
fast		bá?sig	baksig
forget		li?sap	leksap
hard		mi?tog	kitog
house lizard		taktak	taktak
intoxicated		linúg	linug ‘dizzy’
left over		buwáy	buhay
locust		pissal	pisah
odor		?alúb	?ahob
put, place		?idton	diton
rat		?uyiŋ	kuyiŋ
root		lanút	lanot
run		gínaŋ	ginan
scratch		gusgus	gusgus
seek		?alíyu?	?ahoyok
sew		dalúp	dahop/darop
small		ba?ik	bilek ‘small’ (archaic)
tear		pi?nat	piknet
true		talúd	tahod
vein		lítid	litid

**Table 11. Some unique forms in Arta**

Gloss	Arta	Gloss	Arta
arrive	dumigdig	lime	nusú
back	sapán	lose	minahhut
boil (v.)	sumpud	love	kabbata
bolo	bisuruk	male	gilañán
bone	sagnit	morning	damadmañ
burn	nasigí	mosquito	buñur
call	tagyan	mud	tabug
chest	gusu	narrow	minasaldit
chicken	úrat	near	mebbiyən
dog	lápul	night	bíñuət
drink	mattim	person	agani
female	bukágan	rain	púnad
finger nail	lusip	red	melatá
fire	dut	run	maggurugud
hair, feather	polog	sit	tumuttud
hear	atiñən	sleep	médam
house	bunbun	stand	tumadyor

**Table 12. Examples of the *r* reflex of \*R in Arta**

Gloss	Arta	Proto-Philippines
man	arta	*qaRta(q)
worm	ares	*qəRəs
vein	urat	*quRat
thunder	adur	*()duR
new	buru	*baqəRu
hearth	dupuran	*dapuR
soup	diru	*diRu
wash	uras	*huRas
bite	arat	*kaRat
rib	tarañ	*tagəRañ

**Table 13. *g* reflexes of \*R in Arta**

<b>Gloss</b>	<b>Arta</b>	<b>PAN, PPH, PCO</b>
banana	bagat	*baRat
betel leaf	god	*Rawəj
bunch (bananas)	búlig	*buliR
dream	tagtaginip	*taRa-qinəp
dust	dupug	*dapuR
egg	ilug	*qi-CəluR
left (hand)	wígi	*wiRi
lung	baga	*baRaQ
mouth	bíbig	*bibiR
neck	lig	*liqəR
sail	láyug	*layaR
sand	dagat	*daRat
snake	ulag	*quləR
wash hands	buggu	*bəRu

**Table 14. Reflexes of \*j in Arta**

<b>Gloss</b>	<b>Arta</b>	<b>PAN, PPH, PCO</b>
charcoal, soot	udín	*qujin
gall	apdu	*qapəju
name	ɲadín	*ɲ-ajan
navel	pusəd	*pusəj
nose	adun	*qajun
palm (of hand)	palad	*palaj
sibling	wadi	*waji
rice (plant)	pagáy	*pa:jəy
stinging pain	naʔapgəs	*qapjəs



**Table 15. Reflex of \*k in Arta**

Gloss	Arta	PPH, PCo
bad smelling	mebbuyu	*buyuk
bark of tree	ulit	*kulit
bird	manu	*manuk
brain	uta	*qutək
chest	gusu	*gusuk
cough	maŋiyer	*qikəR
father, uncle	lelle	*laki
fire	dut	*dukut
fish	íyan	*qikan
foot	tiyád	*tikəd
laugh	malla	*kəla
louse	utu	*kutu
mat	aba	*qabək
offspring	ana?anna	*qanak
rib	taraŋ	*takaRaŋ
ride	masay	*sakay
see	itta	*kita
stand	tumadyor	*takdəR
tree, wood	ayú	*kaSiw
unmarried girl	madit	*ma-dikit

**Table 16. Arta nominative pronouns**

	Enclitic nominative	PCo Enclitic nominative	Free nominative	PCo
<b>1s</b>	tan	*ak	tan	*siakən
<b>2s</b>	a	*ka	taw	*si?ikaw
<b>1,2s</b>	ita	*kita	tallipita	*si?ikita
<b>3s</b>	Ø	Ø	tawpadman	*sia
<b>1p</b>	ami	*kami	me?aduami	*si?ikami
<b>2p</b>	am	*kam	tam	*si?ikamuyu
<b>1,2p</b>	itam	*kitam	kitam	*si?ikitam
<b>3p</b>	tid	*da	tidu	*si?ida

**Table 17. Arta genitive and locative pronouns**

	Enclitic genitive	Locative	PCo locative
<b>1s</b>	u	dan	*diakən
<b>2s</b>	mu	daw	*diʔikaw
<b>1,2s</b>	ta	dita	*diʔikita
<b>3s</b>	na	dia	*dia
<b>1p</b>	mi	dami	*diʔikami
<b>2p</b>	muyu	dam	*diʔikamuyu
<b>1,2p</b>	tam	ditam	*diʔikitam
<b>3p</b>	di	did	*diʔida

**Table 18. Vowel harmony in Arta**

Gloss	Arta	PAN, PPH, PCO
new	búru	*baqəRuq
pig	bubúy	*babuy
widow	bulu	*ba:lu
dust	dupug	*dapuR
far	meʔaduyu	*Za()uq
stove, hearth	dupuran	*dapuR

**Table 19. Borrowed items, from Gaddang**

Gloss	Arta	Gloss	Arta
broken in pieces	nagúlak <sup>6</sup>	spider	akákawá <sup>7</sup>
cloud	dulam	spit	mattuppak
curly	kurlin <sup>8</sup>	tear (v)	pissayán
egg	ílug <sup>9</sup>	vegetable	nataŋ
fever, hot	meppasu <sup>10</sup>	viand	yakkan
flesh	bálag	wash clothes	mambambal
lobster	payyan	wear clothes	mambaruwásig <sup>11</sup>
loss (business)	darugas <sup>12</sup>	weave cloth	maŋabil
point	tukkəl	wine	binarayán
push	itulay <sup>13</sup>	write	túrak
rice husk	sisik		

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<sup>6</sup> GAD *gullak* ‘cracked, split’.

<sup>7</sup> GAD *kokawa*.

<sup>8</sup> GAD *kurilan*. Possibly from English ‘curling’.

<sup>9</sup> Also Itawis

<sup>10</sup> GAD *patu* ‘hot’. In Gaddang (as well as in other Northern Cordilleran languages) \*s > t in this environment

<sup>11</sup> GAD *barwasi*.

<sup>12</sup> GAD *darogat*.

<sup>13</sup> GAD *tulay*.

**Table 20. Borrowed items, probably from Ilokano**

Gloss	Arta	Gloss	Arta
bed bug	kítəb	eyelash	kimát
brave	maturəd	happy	naragsak
broken	naperdi	hold	iggaman
broom (sweep)	kaykay	kick	kugtalan
cheap	ménos	regret	babawi
cheat	ilúkun <sup>14</sup>	round	nabbukəl
clean	nadalus	saw	ragadi
collapse	nagsat <sup>15</sup>	stone	karagatan <sup>16</sup>
comb	sagaysay	swallow	tilmunən
correct	ustu	thigh	luppu
crab	agatúl	wash face	agidamrus <sup>17</sup>
dew	melinna?aw	water jar	karamba
dirt in eye	napulínjan	wrap	balkútən
eyebrow	kiday		

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<sup>14</sup> ILK *lokoen*.

<sup>15</sup> ILK ‘snap’.

<sup>16</sup> ILK ‘stony place’.

<sup>17</sup> ILK *agdiram-us*.

**Table 21. Borrowed items, probably from Casiguran Dumagat**

Gloss	Arta	Gloss	Arta
awaken	maluwág <sup>18</sup>	leech (field)	lipát
bat	payák	penis	gilañ
bite	ḡuyutân	pregnant	butitán <sup>19</sup>
boat	abaḡ	rat, mouse	bukót
bow and arrow	paḡal <sup>20</sup>	request	magída
cheek	padiḡil	ringworm	galis
crack (v)	bisagán	slow	memmayas
face	mata	strong	messibat
headcold	sipun	sugarcane	talad
hide	ilisu	throw away	ibut
how many	asəḡan	warm by fire	maddiḡdiḡ <sup>21</sup>
island	puruk <sup>22</sup>	wide	mellawá
knee	bul <sup>23</sup>		

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<sup>18</sup> DGTC *lukag*.

<sup>19</sup> DGTC *buktet*.

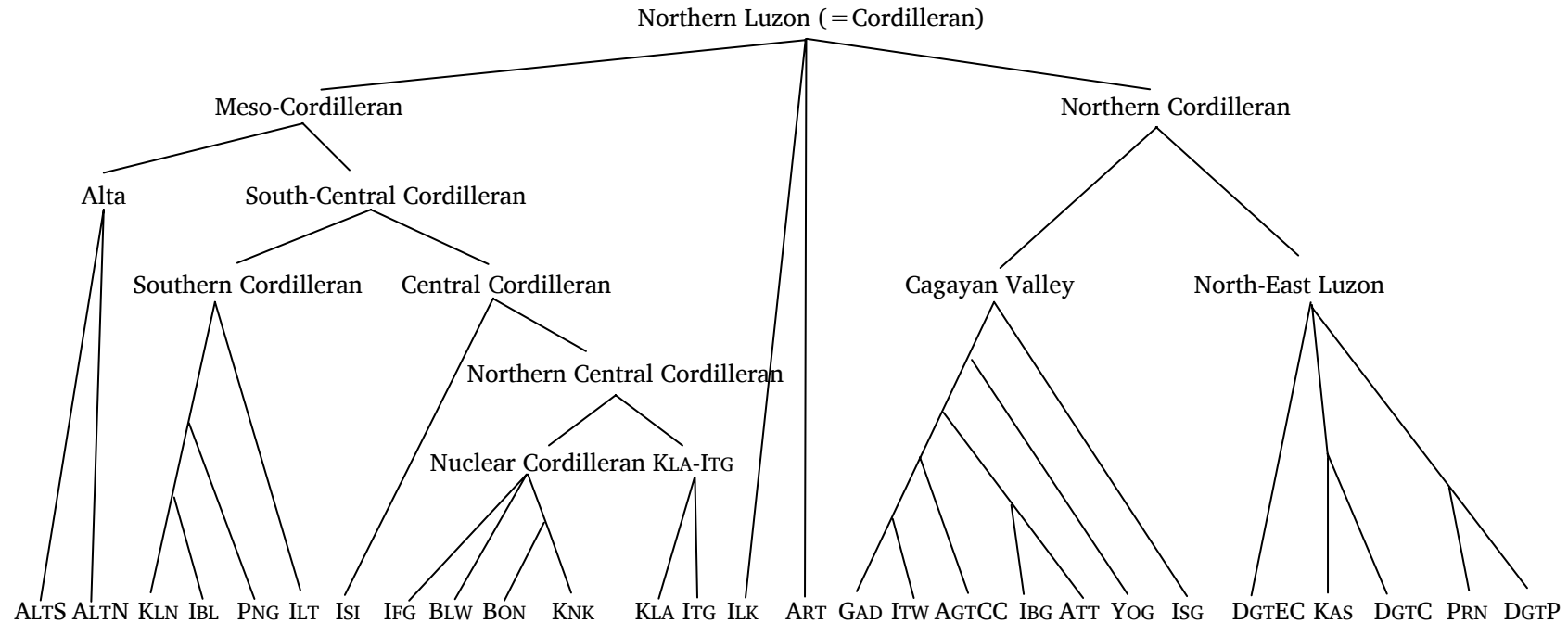
<sup>20</sup> DGTC ‘a kind of arrow’. Palanan ‘arrow’ (general term).

<sup>21</sup> DGTC *dengdeng*.

<sup>22</sup> DGTC *puduk*.

<sup>23</sup> Also Manobo languages.

**Figure 1. Revised Subgrouping of Cordilleran languages**



AGTCC ..... Central Cagayan Agta  
 ALTN..... Northern Alta  
 ALTTS ..... Southern Alta  
 ART ..... Arta  
 ATT ..... Atta  
 BLW..... Balangao  
 BON..... Bontok

DGTC ..... Casiguran Dumagat  
 DGTEC ..... East Cagayan (= Dupanangan) Dumagat  
 DGTP ..... Palanan Dumagat  
 GAD ..... Gaddang  
 IBG..... Ibanag  
 IBL ..... Ibaloi  
 IFG..... Ifugao

ILK ..... Ilokano  
 ILT ..... Ilongot  
 ISG ..... Isnag  
 ISI ..... Isinai  
 ITG..... Itneg  
 ITW ..... Itawis  
 KAS..... Kasiguranin

KLA-ITG ..... Kalinga-Itneg  
 KLA ..... Kalinga  
 KLN ..... Kallahan  
 KNK..... Kankanaey  
 PNG ..... Pangasinan  
 PRN ..... Paranan  
 YOG..... Yogad

